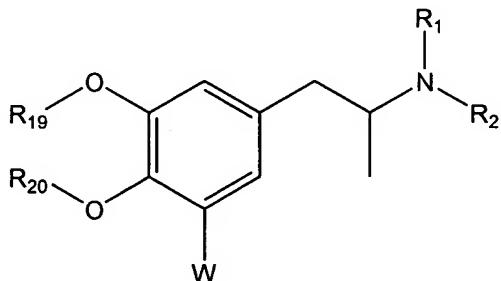


Amendments to the Claims

Please amend the claims as follows:

1. (currently amended) A compound of the formula:



wherein: R^{19} is lower alkyl or is taken together with R^{20} to form a ring, which may be a five- or six-member ring, usually a five-member ring;

R^{20} is lower alkyl, or is taken together with R^{19} to form a ring as discussed above,

R^1 is H or lower alkyl,

R^2 is H, lower alkyl, a protecting group or

- (a) $-(CH_2)_aC(O)(CH_2)_bSR^3$, wherein a is 0 to 5, b is 1 to 5 and R^3 is H or lower alkyl or $(CH_2)_cC(O)NR^4R^5$ wherein c is 1 to 5, R^4 is H or lower alkyl and R^5 is H, an immunogenic carrier or a label, or
- (b) $(A)_d(Q)_n$ wherein Q is H or $-(CH_2)_eCH(R^8)(CH_2)_fOC(O)(CH_2)_gR^9$ being H only when d is 1 wherein A is $-C(O)(CH_2)_hC(O)NR^{10}((CH_2)_jO(CH_2)_kO)_m(CH_2)_lNR^{11}-$, d is 0 or 1, n is 0 or 1 wherein one of d or n is 1, h is 1 to 5, R^{10} is H or lower alkyl, j is 1 to 5, k is 1 to 5, m is 1 to 3, R^{11} is H or lower alkyl, e is 1 to 5, R^8 is OH or H, f is 1 to 5, g is 0 to 5, and R^9 is H, an immunogenic carrier or a label;

W is H or JR^{14} being H when R^2 is other than H or lower alkyl, wherein

J is O or S,

R^{14} is H, lower alkyl, a protecting group, or $-(CH_2)_rC(O)NR^{15}(CH_2)_s(D)_tR^{16}$, wherein r is 1 to 5, R^{15} is H or lower alkyl, s is 1 to 5, D is S, O or NH, t is 0 or 1 being 0 when R^{16} is maleimidyl or succinimidyl, R^{16} is H, maleimidyl, succinimidyl, or $-(CH_2)_qC(O)NR^{17}R^{18}$,

q is 1 to 5,

R¹⁷ is H or lower alkyl,
R¹⁸ is H, lower alkyl, an immunogenic carrier or label,
and including the acid salts thereof.

2. (original) A compound according to Claim 1 wherein R¹ is H and R² is H.

3. (original) A compound according to Claim 1 wherein R¹ is H and R² is lower alkyl.

4. (original) A compound according to Claim 3 wherein R¹⁶ is -(CH₂)_qC(O)NR¹⁷R¹⁸ and R¹⁸ is a poly(amino acid).

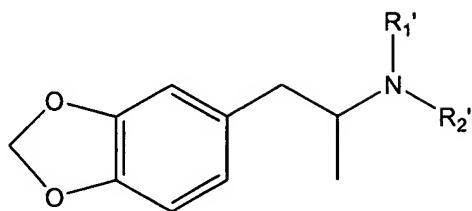
5. (previously presented) A compound according to Claim 1 wherein R¹ is H or lower alkyl, W is H and R² is -(CH₂)_aC(O)(CH₂)_bSR³, wherein R³ is -(CH₂)_cC(O)NR⁴R⁵ wherein R⁴ is H or lower alkyl and R⁵ is a poly(amino acid).

6. (previously presented) A compound according to Claim 1 wherein R¹ is H or lower alkyl, W is H and R² is -(CH₂)_aC(O)(CH₂)_bSR³, wherein R³ is -(CH₂)_cC(O)NR⁴R⁵ wherein R⁴ is H or lower alkyl and R⁵ is an immunogenic carrier.

7. (previously presented) A compound according to Claim 1 wherein R¹ is H or lower alkyl, W is H and R² is (A)_d(Q)_n wherein d is 0, n is 1, Q is -(CH₂)_eCH(R⁸)(CH₂)_fOC(O)(CH₂)_gR⁹ and R⁹ is a poly(amino) acid.

8. (previously presented) A compound according to Claim 1 wherein R¹ is H or lower alkyl, W is H and R² is (A)_d(Q)_n wherein d is 1, n is 1, Q is -(CH₂)_eCH(R⁸)(CH₂)_fOC(O)(CH₂)_gR⁹ and A is -C(O)(CH₂)_hC(O)NR¹⁰((CH₂)_jO(CH₂)_kO)_m(CH)₂NR¹¹-, and R⁹ is a poly(amino) acid.

9. (currently amended) A compound of the formula:



Formula II

wherein: R^{1'} is H, lower alkyl or a protecting group,

R^{2'} is a protecting group, or

- (a) -(CH₂)_aC(O)(CH₂)_bSR^{3'}, wherein a is 0 to 5, b is 1 to 5 and R^{3'} is H or lower alkyl or (CH₂)_cC(O)NR^{4'}R^{5'}, wherein, c is 1 to 5, R^{4'} is H or lower alkyl and R^{5'} is H, an immunogenic carrier or a label, or
- (b) (A)_d(Q)_n wherein Q is H or -(CH₂)_eCH(R^{8'})(CH₂)_fOC(O)(CH₂)_gR^{9'}, being H only when d is 1 wherein A is -C(O)(CH₂)_hC(O)NR^{10'}((CH₂)_jO(CH₂)_kO)_m(CH₂)_lNR^{11'}-, d is 0 or 1, n is 0 or 1 wherein one of d or n is 1, h is 1 to 5, R^{10'} is H or lower alkyl, j is 1 to 5, k is 1 to 5, m is 1 to 3, R^{11'} is H or lower alkyl, e is 1 to 5, R^{8'} is OH or H, f is 1 to 5, g is 0 to 5, and R^{9'} is H, an immunogenic carrier or a label,

and including the acid salts thereof.

10. (previously presented) A compound according to Claim 9 wherein R^{1'} is H or lower alkyl and R^{2'} is -(CH₂)_aC(O)(CH₂)_bSR^{3'} wherein a is 0, b is 1, R^{3'} is H.

11. (previously presented) A compound according to Claim 9 wherein R^{1'} is H or lower alkyl and R^{2'} is -(CH₂)_aC(O)(CH₂)_bSR^{3'} wherein a is 0, b is 1, R^{3'} is (CH₂)_cC(O)NR^{4'}R^{5'}, wherein c is 1, R^{4'} is H and R^{5'} is a poly(amino) acid.

12. (currently amended) A compound according to Claim 11 wherein said poly(amino) acid is an enzyme or an immunogenic carrier immunogen.

13. (previously presented) A compound according to Claim 9 wherein R^{1'} is H or lower alkyl and R^{2'} is -(CH₂)_aC(O)(CH₂)_bSR^{3'} wherein a is 0, b is 1, R^{3'} is (CH₂)_cC(O)NR^{4'}R^{5'}, wherein c is 1, R^{4'} is H and R^{5'} is an immunogenic carrier.

14. (currently amended) A compound according to Claim 9 wherein R^{1'} is H or lower alkyl and R^{2'} is -(CH₂)_aC(O)(CH₂)_bSR^{3'} wherein a is 0, b is 1, R^{3'} is (CH₂)_cC(O)NR^{4'}R^{5'}, wherein c is 1, R^{4'} is H and R^{5'} is a particle label or a particle immunogenic carrier.

15. (previously presented) A compound according to Claim 9 wherein R^{1'} is H or lower alkyl and R^{2'} is (A)_d(Q)_n wherein d is 0, n is 1, Q is -(CH₂)_eCH(R^{8'})(CH₂)_fOC(O)(CH₂)_gR^{9'}, e is 1, R^{8'} is OH, f is 1, g is 0 and R^{9'} is a poly(amino) acid.

16. (currently amended) A compound according to Claim 15 wherein said poly(amino) acid is an enzyme or an immunogenic carrier immunogen.

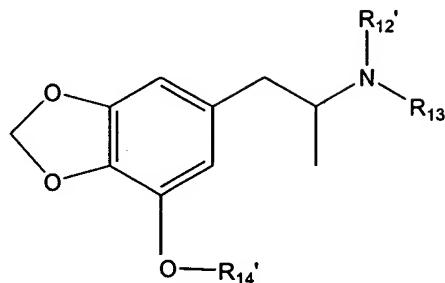
17. (previously presented) A compound according to Claim 9 wherein R^{1'} is H or lower alkyl and R^{2'} is (A)_d(Q)_n wherein d is 0, n is 1, Q is H, A is -C(O)(CH₂)_hC(O)NR^{10'}((CH₂)_jO(CH₂)_kO)_m(CH)₂NR^{11'}-, R^{10'} is H, h is 2, m is 1, j is 2, k is 2, R^{11'} is H.

18. (currently amended) A compound according to Claim 9 wherein R^{1'} is H or lower alkyl and R^{2'} is (A)_d(Q)_n wherein d is 1, n is 1, Q is -(CH₂)_eCH(R^{8'})(CH₂)_fOC(O)(CH₂)_gR^{9'}, e is 1, R^{8'} is OH, f is 1, g is 0, A is -C(O)(CH₂)_hC(O)NR^{10'}((CH₂)_jO(CH₂)_kO)_m(CH)₂NR^{11'}-, R^{10'} is H, h is 2, m is 1, j is 2, k is 2, R^{11'} is H and R^{9'} is a poly(amino) acid or a particle label or a particle immunogenic carrier.

19. (currently amended) A compound according to Claim 18 wherein R^{9'} is a poly(amino) acid, which is an enzyme or an immunogenic carrier immunogen.

20. (currently amended) A compound according to Claim 18 wherein R^{9'} is a particle label or a particle immunogenic carrier.

21. (currently amended) A compound of the formula:



Formula III

wherein: R^{12'}, is H or lower alkyl,
R^{13'}, is H or lower alkyl,
R^{14'}, is a protecting group, or -(CH₂)_rC(O)NR^{15'},(CH₂)_s(D)_tR^{16'}, wherein r is 1 to 5,
R^{15'}, is H or lower alkyl, s is 1 to 5, D is S, O or NH, t is 0 or 1 being 0 when R^{16'}, is maleimidyl or succinimidyl, R^{16'}, is H, a protecting group, maleimidyl or succinimidyl, or -(CH₂)_qC(O)NR^{17'},R^{18'}, wherein q is 1 to 5,
R^{17'}, is H, lower alkyl or a protecting group,
R^{18'}, is H, lower alkyl, a protecting group, an immunogenic carrier or label,

and including salts thereof.

22. (previously presented) A compound according to Claim 21 wherein R^{12'} is H and R^{13'} is H or lower alkyl, R^{14'}, is -(CH₂)_rC(O)NR^{15'},(CH₂)_s(D)_tR^{16'}, wherein r is 1, R^{15'}, is H, s is 2, D is S, t is 1 and R^{16'}, is H.

23. (previously presented) A compound according to Claim 21 wherein R^{12'} is H and R^{13'} is H or lower alkyl, R^{14'}, is -(CH₂)_rC(O)NR^{15'},(CH₂)_s(D)_tR^{16'}, wherein r is 1, R^{15'}, is H, s is 2, t is 0 and R^{16'}, is succinimidyl or maleimidyl.

24. (currently amended) A compound according to Claim 21 wherein R^{12'} is H and R^{13'} is H or lower alkyl, R^{14'}, is -(CH₂)_rC(O)NR^{15'},(CH₂)_s(D)_tR^{16'}, wherein r is 1, R^{15'}, is H, s is 2, D is S, t is 1 and R^{16'}, is -(CH₂)_qC(O)NR^{17'},R^{18'}, q is 1, R^{17'}, is H and R^{18'}, is a poly(amino) acid or a particle label or a particle immunogenic carrier.

25. (currently amended) A compound according to Claim 24 wherein R¹⁸, is a particle label or a particle immunogenic carrier.

26. (currently amended) An antibody raised against a compound according to Claim 16 wherein said poly(amino) acid is an immunogenic carrier immunogen.

27. (currently amended) An antibody raised against a compound according to Claim 19 wherein said poly(amino) acid is an immunogenic carrier immunogen.

28. (currently amended) An antibody raised against a compound according to Claim 24 wherein R¹⁷, is a poly(amino) acid, which is an immunogenic carrier immunogen.

29. (previously presented) A reagent system comprising a compound according to Claim 16 wherein said poly(amino) acid is an enzyme, an antibody for methylenedioxymphetamine and/or an antibody for methylenedioxymethamphetamine and/or an antibody for methylenedioxyethamphetamine.

30. (previously presented) A reagent system comprising a compound according to Claim 19 wherein said poly(amino) acid is an enzyme, an antibody for methylenedioxymphetamine and/or an antibody for methylenedioxymethamphetamine and/or an antibody for methylenedioxyethamphetamine.

31. (previously presented) A reagent system comprising a compound according to Claim 24 wherein R¹⁷, is a poly(amino) acid, which is an enzyme, an antibody for methylenedioxymphetamine and/or an antibody for methylenedioxymethamphetamine and/or an antibody for methylenedioxyethamphetamine.

32. (previously presented) A method for determining methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

- (i) said sample and
- (ii) a reagent system according to Claim 29; and

(b) examining said medium for the presence of a complex comprising said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine, the presence thereof indicating the presence of said methylenedioxymethamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in said sample.

33. (previously presented) A method according to Claim 32 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxymethamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in said sample.

34. (previously presented) A method according to Claim 33 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

35. (previously presented) A method according to Claim 33 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

36. (previously presented) A method for determining methylenedioxymethamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in a sample suspected of containing methylenedioxymethamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine, said method comprising:

(a) providing in combination in a medium:

- (i) said sample and
- (ii) a reagent system according to Claim 30; and

(b) examining said medium for the presence of a complex comprising said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine

and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

37. (previously presented) A method according to Claim 36 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

38. (previously presented) A method according to Claim 37 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

39. (previously presented) A method according to Claim 37 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

40. (previously presented) A method for determining methylenedioxymphetamine and/or methylenedioxymethamphetamine in a sample suspected of containing methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

- (i) said sample and
- (ii) a reagent system according to Claim 31; and

(b) examining said medium for the presence of a complex comprising said methylenedioxymphetamine and said antibody for methylenedioxymphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine, the presence thereof indicating the presence of said methylenedioxymphetamine and/or methylenedioxymethamphetamine in said sample.

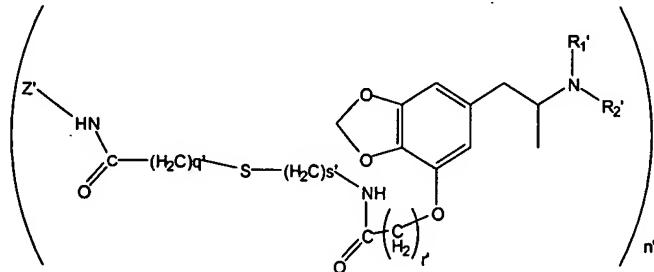
41. (previously presented) A method according to Claim 40 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine in said sample.

42. (previously presented) A method according to Claim 41 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

43. (previously presented) A method according to Claim 41 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

44. (previously presented) A method for determining amphetamine and/or methamphetamine and/or methylenedioxyethylamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine, said method comprising:

- (a) providing in combination in a medium:
 - (i) said sample,
 - (ii) an antibody for methylenedioxyamphetamine, and/or
 - (iii) an antibody for methylenedioxymethamphetamine, and/or
 - (iv) an antibody for methylenedioxyethylamphetamine, and
 - (v) a compound of the formula:



wherein:

R^{1'}, is H,

R^{2'}, is H, methyl or ethyl,

r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

Z' is an enzyme,

n' is an integer between 1 and the molecular weight of said enzyme divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethylamphetamine and said antibody for methylenedioxyethylamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine in said sample.

45. (previously presented) A method according to Claim 44 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine in said sample.

46. (previously presented) A method according to Claim 45 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

47. (previously presented) A method according to Claim 45 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

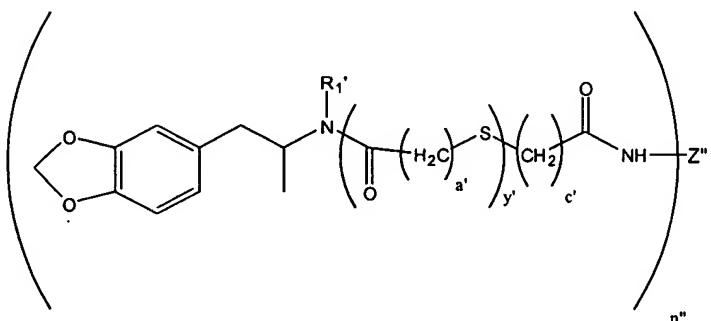
48. (previously presented) A method according to Claim 44 wherein said enzyme is glucose-6-phosphate dehydrogenase.

49. (previously presented) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine in a sample suspected of

containing methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine, said method comprising:

(a) providing in combination in a medium:

- (i) said sample,
- (ii) an antibody for methylenedioxymphetamine, and/or
- (iii) an antibody for methylenedioxymethamphetamine, and/or
- (iv) an antibody for methylenedioxymethamphetamine, and
- (v) a compound of the formula:



wherein:

R^{1'} is H, or methyl, or ethyl,

a' is 1 to 5,

y' is 1,

Z' is an enzyme,

c' is 1 to 5,

n' is an integer between 1 and the molecular weight of said enzyme divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxymphetamine and said antibody for methylenedioxymphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine, the presence thereof indicating the presence of said methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in said sample.

50. (previously presented) A method according to Claim 49 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine in said sample.

51. (previously presented) A method according to Claim 50 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

52. (previously presented) A method according to Claim 50 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

53. (previously presented) A method according to Claim 49 wherein said enzyme is glucose-6-phosphate dehydrogenase.

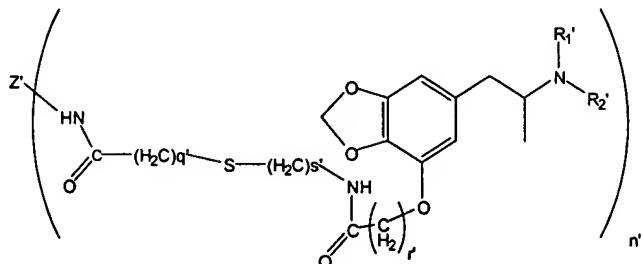
54. (previously presented) A method for determining methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine in a sample suspected of containing methylenedioxymphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine, said method comprising:

(a) providing in combination in a medium:

- (i) said sample,
- (ii) conjugate of an enzyme and a methylenedioxymphetamine

analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxyethylamphetamine analog,

(i) an antibody for methylenedioxymphetamine, said antibody being raised against a compound of the formula:



wherein:

R¹, is H,

R², is H,

r' is 1 to 5,

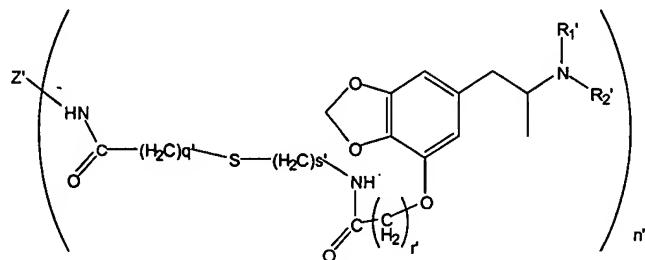
s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n" is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R¹, is H,

R², is methyl,

r' is 1 to 5,

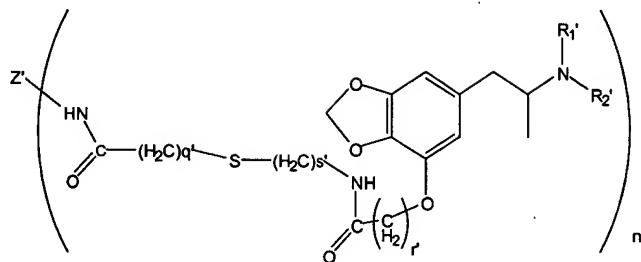
s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n" is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(v) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1'} is H,

R^{2'} is ethyl,

r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n" is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine, the presence thereof indicating the presence of said methylenedioxymethamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in said sample.

55. (previously presented) A method according to Claim 54 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxymethamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in said sample.

56. (previously presented) A method according to Claim 55 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

57. (previously presented) A method according to Claim 55 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

58. (original) A method according to Claim 55 wherein said enzyme is glucose-6-phosphate dehydrogenase.

59. (original) A method for determining methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in a sample suspected of containing methylenedioxymethamphetamine and/or methylenedioxymethamphetamine, said method comprising:

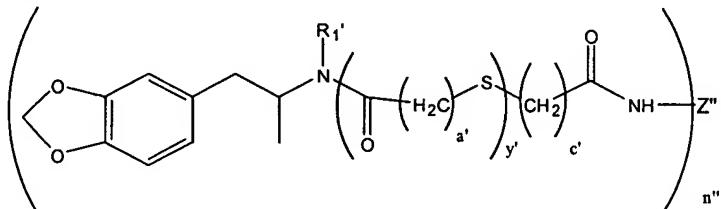
(a) providing in combination in a medium:

(i) said sample,

(ii) a conjugate of an enzyme and an methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog,

(i) an antibody for methylenedioxymethamphetamine, said antibody

being raised against a compound of the formula:



wherein:

R^{1'} is H,

a' is 1 to 5,

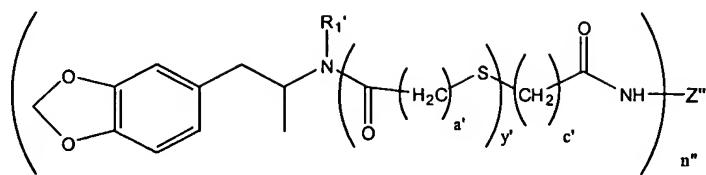
y' is 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1'} is methyl,

a' is 1 to 5,

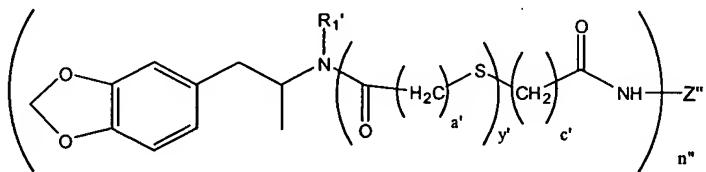
y' is 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(v) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1'} is ethyl,

a' is 1 to 5,

y' is 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine and/or methylenedioxymethamphetamine in said sample.

60. (original) A method according to Claim 59 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethylamphetamine in said sample.

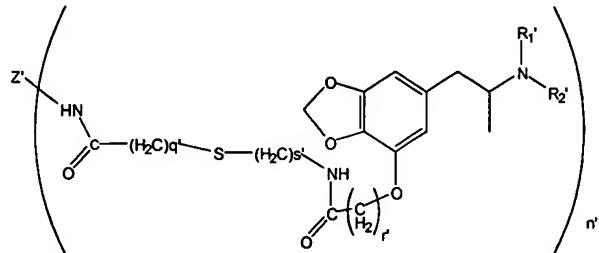
61. (original) A method according to Claim 60 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

62. (original) A method according to Claim 60 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

63. (original) A method according to Claim 59 wherein said enzyme is glucose-6-phosphate dehydrogenase.

64. (original) A kit comprising in packaged combination:

- (i) an antibody for methylenedioxyamphetamine, and/or
- (ii) an antibody for methylenedioxymethamphetamine, and/or
- (iii) an antibody for methylenedioxyethylamphetamine, and
- (iv) a compound of the formula:



wherein:

R^{1'} is H,

R^{2'} is H, methyl, or ethyl,

r' is 1 to 5,

s' is 1 to 5,

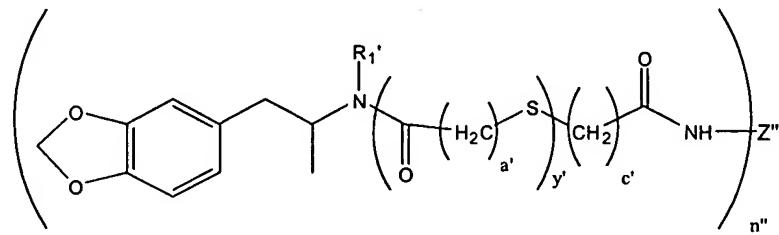
q' is 1 to 5,

Z' is an enzyme such as, for example, glucose-6-phosphate dehydrogenase,
n' is an integer between 1 and the molecular weight of said enzyme divided by about 500.

65. (original) A kit according to Claim 64 wherein said enzyme is glucose-6-phosphate dehydrogenase.

66. (currently amended) A kit comprising in packaged combination:

- (i) an antibody for methylenedioxymethamphetamine,
- (ii) an antibody for methylenedioxymethamphetamine, and/or
- (iii) an antibody for methylenedioxymethamphetamine, and
- (iv) a compound of the formula:



wherein:

R^{1'} is H, methyl or ethyl,

a' is 1 to 5, usually 1,

y' is 0 or 1,

Z' is an enzyme such as, for example, glucose-6-phosphate dehydrogenase,

c' is 1 to 5,

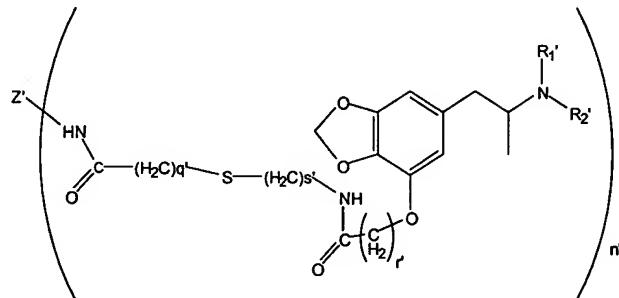
n' is an integer between 1 and the molecular weight of said enzyme divided by about 500.

67. (original) A kit according to Claim 66 wherein said enzyme is glucose-6-phosphate dehydrogenase.

68. (original) A kit comprising in packaged combination:

- (i) a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog, and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog, and

(ii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1'} is H,

R^{2'} is H,

r' is 1 to 5,

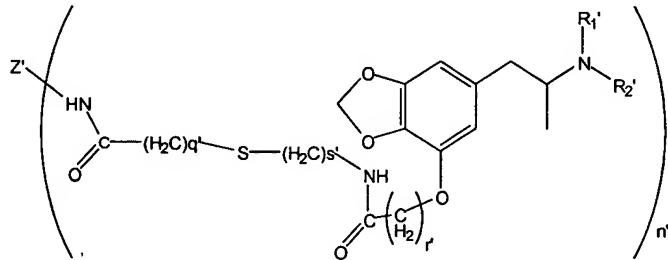
s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n" is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1'} is H,

R^{2'} is methyl,

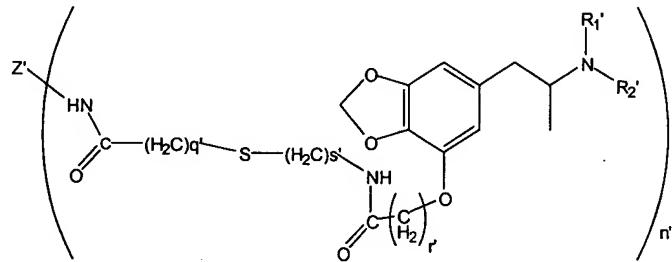
r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,
n" is an integer between 1 and the molecular weight of said immunogenic protein or said
immunogenic carrier divided by about 500, and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised
against a compound of the formula:



wherein:

R¹', is H,

R²', is ethyl,

r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

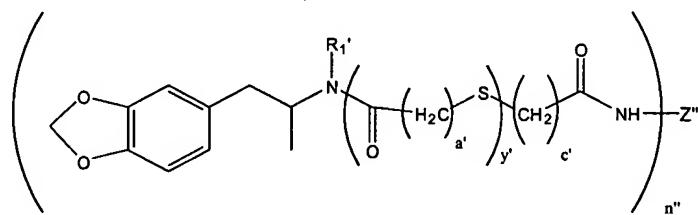
Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n" is an integer between 1 and the molecular weight of said immunogenic protein or said
immunogenic carrier divided by about 500.

69. (currently amended) A kit comprising in packaged combination:

(i) a conjugate of an enzyme and an
methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a
methylenedioxymethamphetamine analog, and

(ii) an antibody for methylenedioxymethamphetamine, said antibody
being raised against a compound of the formula:



wherein:

R^1' is H,

a' is 1 to 5,

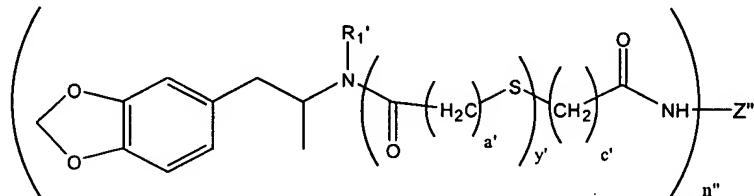
y' is 0 or 1, usually 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^1' is methyl,

a' is 1 to 5,

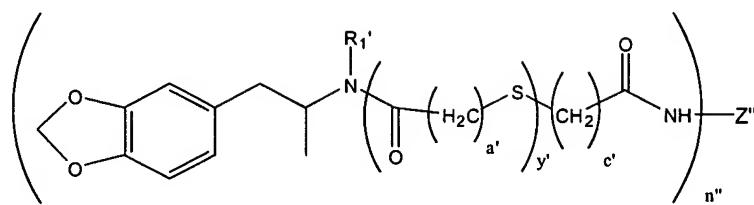
y' is 0 or 1, usually 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500, and/or

(iv) an antibody for methylenedioxyethylamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^1' is ethyl,

a' is 1 to 5,

y' is 0 or 1, usually 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500.